

REMARKS

Claims 1-9, 11-28 and 34-43 are currently pending in the application. Claim 10 has been canceled without prejudice or disclaimer and claims 1, 16, 22, 34, 36 and 42 have been amended. Support for the amendment to claims 1, 16, 34 and 36 is found at least on page 6, lines 9-13. Support for the amendment to claim 22 is found at least on page 28, lines 17-19. Claim 42 has been amended to correct a grammatical error. Applicants respectfully assert that no new matter has been added and request reconsideration of the claims currently pending in the application.

On page 2 of the Office Action, claims 1-28 and 34-43 are rejected under 35 U.S.C. § 112 first paragraph for failing to comply with the written description requirement. The Applicants respectfully traverse this rejection, but have amended the application to overcome the rejections. Claims 1, 16, 34 and 36 have been amended. Applicants respectfully assert that all claims comply with 35 U.S.C. § 112 and request that the rejections be withdrawn.

On page 3 of the Office Action, claims 1-28 and 34-43 are rejected under 35 U.S.C. § 112 second paragraph for being indefinite. The Applicants respectfully traverse this rejection, but have amended the application to overcome the rejections. Claims 1, 16, 34 and 36 have been amended. The Examiner's concern with the term "generally" has been addressed by the present amendment, wherein it is specified that the functional groups of the bridges are generally non-reactive with other bridges. Comparative reactivity of functional groups of organic molecules is widely understood, so specifying general non-

reactivity does not render the claims indefinite. Claim 10 has been cancelled. Applicants respectfully assert that all claims comply with 35 U.S.C. § 112 and request that the rejections be withdrawn.

On page 4 of the Office Action, claims 1-28 and 34-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogle, et al. (U.S. Patent No. 5,958,669) in view of Yang, et al. (U.S. Patent No. 5,935,168). Applicants respectfully traverse the rejections.

Three criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or combination of references, must teach or suggest all the claim limitations. MPEP § 2142. Applicants respectfully traverse the rejection since the prior art fails to disclose all the claim limitations and there would be no motivation to combine the references as proposed by the Examiner.

Although the Examiner takes the position that the linker can be a diamine and the glutaraldehyde a bridge, amended claims 1, 16, 34, and 36 require that the functional groups of the bridge be generally non-reactive with other bridges. However, it is known that glutaraldehyde self-polymerizes to form oligomers and polymers. In fact, Ogle, et al. teach as follows:

"Crosslinking compounds, such as dialdehydes, can polymerize spontaneously in solution under a variety of conditions." (Column

3, lines 3-5)

Therefore, it is apparent that glutaraldehyde cannot function as a bridge in which the functional groups are generally non-reactive with other bridges, as required by the amended claims. The claims describe an invention not taught or suggested by the cited references.

With regard to the Examiner's assertion that free aldehyde groups remain after crosslinking in Ogle, et al., the reference merely teaches that dialdehydes tend to polymerize spontaneously at conditions appropriate for crosslinking tissue (Column 4, lines 1-2) and does not suggest any other use than as a crosslinker. Yang, et al. do not supply the deficiency of Ogle, et al., since no bridge satisfying the requirements of Applicants' amended claims is taught or suggested.

With particular regard to claims 34-37, the modified sites are described in the specification at page 17, lines 5-23, wherein it is stated that the modified sites can include an aldehyde group (Page 17, lines 10-11). It is also stated:

"In such instances, the modified protein, and more particularly the aldehyde group added to the modified protein can act as a linker."

(Page 17, lines 21-23)

The cited references, it is submitted, neither disclose nor suggest the subject matter of Applicants' invention, namely, modified sites such as aldehyde groups in tissues, and therefore do not render Applicants' invention obvious.

Dependent claims 2-9,11-15, and 43, which are dependent from independent claim 1, dependent claims 17-28, which are dependent from

independent claim 16, dependent claims 35, 38- 40, which are dependent from independent claim 34, and dependent claims 37, 41, and 42, which are dependent from independent claim 36, were also rejected under 35 U.S.C. §103(a) as being unpatentable over Ogle, et al. in view of Yang, et al. While Applicants do not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are moot in view of the remarks made in connection with independent claims 1, 16, 34, and 36. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent claims 2-9, 11-15, 17-28, 35, and 37-43 are also in condition for allowance.

Applicants respectfully request withdrawal of the rejection of claims 1-9, 11-28, and 34-43, now present in the application, under 35 U.S.C. § 103(a) as being anticipated by Ogle, et al. in view of Yang, et al.

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. Applicants respectfully request favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' attorney of record, Hallie A. Finucane at (952) 253-4134.

Respectfully submitted,

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